



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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March 15, 1994

Mr. Jerry North
Interstate Brick Company
9780 South 5200 West
West Jordan, Utah 84088

Re: Review of Permit Amendment Response, Interstate Brick Company (Interstate),
Fivemile Pass Mine, M/045/006, Tooele County, Utah

Dear Mr. North:

The Division has reviewed your response received February 11, 1994. Thank you for following the format of our January 19, 1994 letter in your response. Your response has answered the Division's outstanding technical concerns dealing with the 1/10/94 amendment. We offer the comments listed below as clarification. One issue which remains to be resolved before we can offer approval of this amendment is the reclamation surety. Please see the surety section for details.

R647-4-104 - Surface and Mineral Owners

The mineral rights of the area within the dashed border on the February 11, 1994 map are held by Interstate.

R647-4-105 - Maps, Drawings & Photographs

It is the Division's understanding that Interstate will be submitting an additional site map generated from an aerial photo. This new map is to show existing disturbances such as roads and ORV trails.

R647-4-106 Operation Plan

106.3 Estimated Acreage

Interstate's response estimates the total amendment disturbance to be approximately 12.2 acres. The acreage breakdown is: Phase I of the pit 5.05 acres, Phase II 2.30 acres, Phase III 2.87 acres, clay stockpiles 2.0 acres. Phases I-III will mine through three of the



four existing exploration trenches; therefore, this area was not included. The exploration disturbance was permitted under E/045/096 by Interstate and was estimated at 0.55 acres.

As discussed in the meeting of 3/8/94, Interstate also proposes an additional topsoil stockpile area of approximately 1.50 acres, and a "floating" area of 5.0 acres. The floating area will allow IBC more flexibility in locating roads or stockpiles. This floating area will be bonded for the reclamation treatments of ripping, fertilizing, disking and drill seeding. These additions to the amendment would make a **total proposed amendment disturbance of 18.72 acres**. Adding this to the **estimated presently existing disturbance of 28.96 acres** would give a **total permit disturbance of 47.68 acres**.

106.4 Estimated waste/overburden tonnage

Interstate estimates 325,926 CY or 488,889 tons of limestone overburden will be placed in the existing 2e pit as backfill from the Phase I pit. Overburden from the Phase II pit is planned to be placed as backfill in the excavated Phase I pit. Overburden from the Phase III pit is planned to be placed as backfill in the excavated Phase II pit.

106.6 Plan for protecting & redepositing existing soils

Interstate estimates a total of 10,676 CY of salvageable topsoil material for Phases I-III. Topsoil salvaged from the amendment areas will be placed in a new stockpile separate from the existing topsoil stockpile as discussed in the 3/8/94 meeting. The purpose of segregating the topsoil is to minimize haulage costs and prevent dilution of what is believed to be a higher quality soil material. The existing topsoil stockpiled west of the amendment area and adjacent to pit 3e (a.k.a. pit 2g), immediately southeast of the 4c dump, will be used in reclamation of the 2g pit area. The inactive areas of the topsoil stockpiles (sideslopes, top, etc.) will be seeded by Interstate to stabilize the soils until the time of final reclamation.

106.9 Location and size of ore & waste stockpiles

Interstate proposes to use the existing clay stockpiles located along the main access road to the mine. Measurements of the existing stockpile areas sketched on the map give approximately 0.68 acres. The projected disturbance for the amendment is an increase of the clay stockpile area by an additional 2.0 acres.

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R647-4-107 Operation Practices

107.1.14 - Public safety & welfare

107.1.15 - Construction of berms, fences, barriers

Interstate plans to post warning signs in the area in the immediate future. Some existing pits worked by Interstate currently have safety berms in place. Interstate plans to construct a safety berm around the amended pit area after the project begins and as needed during the project.

107.2 & 107.3 Minimization of damage to drainages

According to Interstate, the natural slope in the project area and an existing earth and rock dam will control run off. During mining, all runoff will be diverted away from the mine site. No drainages will be impacted by this amendment. At the end of mining, the existing earth and rock dam will be removed from the drainage channel and used in reclamation of the site.

R647-4-110 - Reclamation plan

110.1 - Current and postmining land use

The postmining land use for the areas included in this amendment will be the same as the existing mine plan. Page 5 of 13 of the existing plan lists the postmine land use as rangeland.

R647-4-113 - Surety

Although it is not mentioned in the response, the Division understands that Interstate wishes to re-assign a portion of the existing Fivemile Pass Mine reclamation surety to this amendment area. This would also require the deletion of a portion of the proposed mine disturbance described by the mine plan prior to this amendment.

The current reclamation surety for the Fivemile Pass Mine is in the amount of \$53,300. The disturbed area description in the plan listed 24.8 acres existing disturbances, 25.5 acres proposed disturbances and 20.4 acres abandoned disturbances, or approximately 71 acres in total. A review of the original reclamation estimate and information in the correspondence file indicates the original reclamation estimate was for a total of 28 acres of disturbance. Please see the Division March 9, 1994 file memo titled "Evaluation of 1/10/94 Permit Amendment ..." for a description of the file review. The most recent annual report

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lists the total disturbed acreage for the Fivemile Pass Mine as 25 acres. The Division is now aware that Interstate no longer holds the state leases in the NE/4 of section 5. These areas were part of the original permit boundary. The recent inspection indicated that Interstate will need to reclaim some disturbances remaining in this area.

In order to determine the current amount of Interstate disturbance at the Fivemile Pass Mine the Division has compared areas from the Interstate map of 9/8/88 and the map of 2/11/94. Using these maps, along with information from the recent inspection and photos, the Division has arrived at an estimate of the disturbances created by Interstate. Please see the sheets titled Disturbed Area Calculations-I & II which were attached to the March 9, 1994 memo for details of this area estimate. This estimate describes the present total disturbance created by Interstate as 28.96 acres. This total includes: areas indicated on the 9/8/88 map as created by Interstate, areas indicated on the 2/11/94 map as created by Interstate, the current topsoil stockpile, and the two clay stockpiles near the main access road. Some areas which were indicated as pre-law on the 2/11/94 map are shown as Interstate disturbances on the 9/8/88 map.

With this information, the Division does not see an excess in the currently posted reclamation surety which could be reassigned to the amendment area. The file documents listing 71 acres of disturbances for the Fivemile Pass mine gave the impression that this operation was "bonded" for 71 acres of disturbance, when in fact, only 28 acres of disturbance were included in the original reclamation estimate. This operation has a "permit" boundary which is larger than the area covered by the reclamation surety. The "permit" boundary shown on the maps actually represents the areas owned by Interstate.

The Division has calculated a new reclamation cost estimate for the currently existing Interstate disturbances and the disturbances proposed under this amendment. The estimate was revised to reflect the issues discussed in the 3/8/94 meeting. The total estimated surety amount is \$108,300 in 1999 dollars. Copies of the reclamation cost estimate and the disturbed area summary sheet are enclosed.

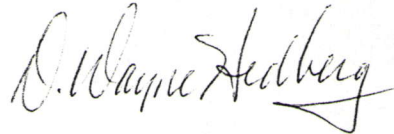
On March 10, 1994, the Division received a fax copy of a rider to the reclamation surety (Bond # 400HU5748) for the Fivemile Pass operations. The rider was effective March 9, 1994 and increased the surety amount from \$53,300 to \$150,000. The Division will need to present the revised surety and a revised Reclamation Contract (Form MR-RC) to the Board of Oil, Gas and Mining for final approval of this amendment to the Fivemile Pass mine permit. In order to present this matter at the April 27, 1994 Board Hearing we will need the completed and signed Reclamation Contract no later than April 7, 1994. A partially complete Reclamation Contract form is enclosed for your use. Please route this copy of the form for the appropriate signatures and return it to the Division at your earliest convenience.

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Given that this review has revealed the existing surety does not cover 71 acres, the Division has re-evaluated Interstate's proposal to determine if the proposal should be considered a "revision" rather than an "amendment" to the existing plan. The evaluation still supports classifying this proposal as an amendment.

If you have any questions regarding this letter please contact me or Tony Gallegos at the Division. Thank you for your cooperation in this permitting matter.

Sincerely,

A handwritten signature in cursive script, reading "D. Wayne Hedberg". The signature is written in dark ink and is positioned above the printed name and title.

D. Wayne Hedberg
Minerals Permitting Supervisor

jb

Enclosures: Reclamation Cost Estimate, Disturbed Area Summary Sheet, Reclamation Contract,

cc: Rod Thompson, Tooele County

Lowell Braxton, DOGM

M45-06Ok.let

RECLAMATION ESTIMATE

DRAFT

Interstate Brick Company

last revision 3/9/94

Fivemile Pass Mine

filename M45-06TG.WQ1

M/045/006

Tooele County

Prepared by Utah State Division of Oil, Gas & Mining

Details of Final Reclamation

- The reclamation details in the original NOI apply to the existing mine disturbances
- This estimate includes the existing disturbance & the 1/10/94 amendment proposal
- All structures & equipment, trash & debris to be removed from the mine site
- All pads, dump tops & new roads to be ripped to 12 inch depth, prior to revegetation
- Pit highwalls blasted or regraded to 1h:1v or less; new pit (amendment) partially backfilled
- Dump slopes to be regraded to 2h:1v or less; topsoil stockpile areas to be disked & seeded
- Existing permit disturbances to be disked(if level), fertilized & broadcast seeded as in the NOI
- Proposed disturbances fertilized,& if level, disked & drill seeded, otherwise broadcast seeded
- Existing disturbance= pit 2a-1.09, pit 2e-7.76, pit 2g-1.68, pit 2b-0.80, dump 1d-5.47,dump 2d-7.81,dump 2c-1.86, pad 2f-0.46, clay stockpiles-0.68, topsoil stockpile-0.50,dump 1b-0.85
- Proposed disturbances= pit I-5.05, pit II-2.30, pit III-2.87, clay stockpiles-2.0, new topsoil stockpile-1.5, "floating" area-5.0
- Summary of reclamation treatments for each area on additional page =>
- Total disturbed acreage included in this estimate = 47.68 acre

Activity	Amount	\$/unit	\$
Drill & blast 2e highwalls to 1:1 (45 degrees)	25,000 CY	0.95	23,750
Regrade pit highwalls 1:1 (angle repose)	6,555 CY	0.27	1,770
Regrade dump slopes to 2:1	3,505 CY	0.28	981
Rip stockpile pads, dump tops & roads	16.32 acre	400	6,528
Remove trash & debris	47.68 acre	50	2,384
Place topsoil (estimate of existing stockpile)	2,500 CY	0.82	2,050
Place new topsoil (volume needed)	12,277 CY	0.57	6,998
Use dump 2c as topsoil for pit 2e	24,000 CY	1.11	26,640
Fertilize (200 lb/acre)	47.68 acre	80	3,814
Disk (existing & proposed level areas)	28.01 acre	75	2,101
Drillseed (proposed, level areas)	19.90 acre	210	4,179
Broadcast seed	27.78 acre	175	4,862
Reseed 20% of total area	9.54 acre	175	1,669
Mobilization	4 equip	1,000	4,000
Subtotal			91,726
Add 10% contingency			9,173
1994-\$ Subtotal			100,898
Add 5 yr escalation at 1.42%			7,370
Total 1999-\$			108,268
Rounded Total in 1999-\$			\$108,300
Average \$/acre = \$2,271			

RECLAMATION ESTIMATE LINE ITEMS

DRAFT

Interstate Brick Company

last revision 3/9/94

Fivemile Pass Mine

filename M45-06TG.WQ1

M/045/006 Tooele County

Prepared by Utah State Division of Oil, Gas & Mining

The details used to arrive at the unit costs in this estimate are listed below.

Match the items with the appropriate row in the estimate page.

DOGM assumed exploration site will be overlain by amended mine area

blast 2e DOGM spreadsheet: 110ft, 85 degrees to 45 degrees, 600 ft length, 2 degrees do
=> DOGM slope regrading spreadsheet, max was \$0.27/CY
=> DOGM slope regrading spreadsheet, max was \$0.28/CY
=> DOGM D9N, 0.6 mph
=> DOGM estimate \$50/acre for this site
=> DOGM estimate from GRAD-DOZ spreadsheet: D10N, U-blade, 300 ft push
=> DOGM estimate from GRAD-DOZ spreadsheet: D10N, U-blade, 200 ft push
=> DOGM estimate from GRAD-DOZ spreadsheet: D10N, U-blade, 400 ft push, 500
=> DOGM estimate; fertilizer \$55/acre or \$0.28/lb & \$25/acre broadcasting from truc
=> DOGM estimate tractor & disk ~\$55/hr, 0.7 acre/hr
=> DOGM estimate: seed \$150/acre, tractor & drill \$45/acre, operator \$25/acre
=> DOGM estimate: seed \$150/acre, broadcasting from truck \$25/acre
=> DOGM estimate: seed \$150/acre, broadcasting from truck \$25/acre
=> DOGM estimate: 1 dozer, 1 FE loader, 1 truck, 1 blasting rig

=>

RECLAMATION ESTIMATE-DISTURBED AREA SUMMARY

DRAFT

Interstate Brick Company

last revision 3/9/94

Fivemile Pass Mine

file name MLE-0670.WG1

M/045/006

Tooele County

Prepared by Utah State Division of Oil, Gas & Mining

Disturbance-type	acre	dump/pit		spreadsheet	spreadsheet	area	volume	lbs	acres	acres	acres	Disturbance-type
		crest	dump/pit	calculated	calculated							
		perimeter-ft	height- ft	dump regrade	pit regrade	rip	topsoil	fertilize	disk	d-seed	b-seed	
2a-old pit	1.09	500	8		94		0	218			1.09	2a-old pit
2e-old pit (1)	7.76				blasting		0	1,552			7.76	2e-old pit (1)
2g or 4-recent pit	1.68	350	20		412		1,355	336			1.68	2g or 4-recent pit
2b old pits	0.80	1,100	8		117		0	160			0.80	2b old pits
1d-old dump	5.47	1,100	20	1,295		3.47	0	1,094			5.47	1d-old dump
2d-old dump, north end	1.81	800	20	706			1,460	362	1.45		1.81	2d-old dump, north en
2d-old dump, south end	2.7	760	25	1398			2,178	540	2.18		2.70	2d-old dump, south e
2d-old dump, west edge	3.3	1000	6	106			2,662	660	2.64		3.30	2d-old dump, west ed
2c-old dump (2)	1.86	1,000	10	294 NA		1.86	0	372	1.86		1.86	2c-old dump (2)
2f or 6-reload pad	0.46					0.46	0	92			0.46	2f or 6-reload pad
Phase I-proposed pit	5.05	1,000	15		1,291		4,074	1,010	5.05	5.05	0.00	Phase I-proposed pit
Phase II-proposed pit	2.30	850	20		1,951		1,855	460	2.30	2.30	0.00	Phase II-proposed pit
Phase III-proposed pit	2.87	750	25		2,690		2,315	574	2.87	2.87	0.00	Phase III-proposed pit
8-clay stockpiles	2.68					2.68	0	536	2.68	2.68		8-clay stockpiles
2-existing topsoil stockpil	0.50					0.50	0	100	0.50	0.50		2-existing topsoil stoc
?-new topsoil stockpile	1.50					1.50	0	300	1.50	1.50		?-new topsoil stockpil
5 acre floating area	5					5.00	4,033	1,000	5.00	5.00		5 acre floating area
1b-old dump (reload pad)	0.85					0.85	0	0.85			0.85	1b-old dump (reload
TOTALS	47.68	NA	NA	3,505	6,556	16.32	19,933	9,367	28.01	19.90	27.78	TOTALS
				spreadsheet	spreadsheet	area	total	lbs	acres	acres	acres	
	acre	dump/pit		calculated	calculated	rip	volume	fertilize	disk	d-seed	b-seed	
		slope	dump/pit	dump regrade	pit regrade		topsoil					
		perimeter-ft	height- ft	volume-CY	volume-CY		needed					

(1) 25,000 CY of material will be blasted to reduce the southwest highwall

(2) All of 2c dump material to be used as topsoil substitute for pit 2d, then 2d footprint to be ripped, fertilized & seeded